



TENNESSEE

Special Emphasis Report: Traumatic Brain Injury 2014

Understanding TBI

Traumatic brain injury (TBI) is a serious public health problem and in the United States. A TBI is caused by a bump, blow, jolt, or penetration to the head that disrupts the normal function of the brain. Each year, traumatic brain injuries contribute to a substantial number of deaths and cases of permanent disability.

Impact and Magnitude of TBI

During 2014, a TBI was sustained by of people in Tennessee. Among those injured, 1,294 (18.8 per 100,000) died where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions, another 5,302 (76.9 per 100,000), were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 53,900 (837.9 per 100,000) were treated and released from emergency departments with a TBI alone or in combination with other injuries or conditions. An unknown number of individuals sustained injuries that were treated in other settings or went untreated.

Causes of TBI

Cause of injury varies across the three levels of severity. *Suicide* was the leading cause of injury among those who died where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions. *Unintentional falls* were the leading cause of injury among those who were hospitalized with a TBI alone or in combination with other injuries or conditions. And, *unintentional falls* were the leading cause of injury among those who were treated and released from emergency departments with a TBI alone or in combination with other injuries or conditions.

Notes: Firearm-related injuries were reported but excluded from the etiology graphic due to overlap with multiple categories (e.g., homicide/assault, suicide). Firearms were related with 49% of deaths, 2% of hospitalizations, and 0.1% of emergency department visits. Completeness of external-cause coding for TBI-related cases can impact the accuracy of the cause classifications for hospitalizations and emergency department visits.

Figure 2: Percentage of Annual TBI-Related Deaths,* Hospitalizations,** and Emergency Department Visits,** by Age, in Tennessee, 2014

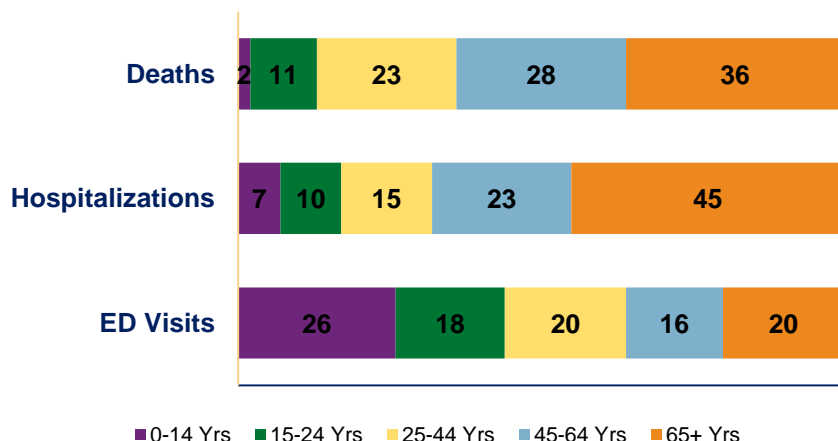
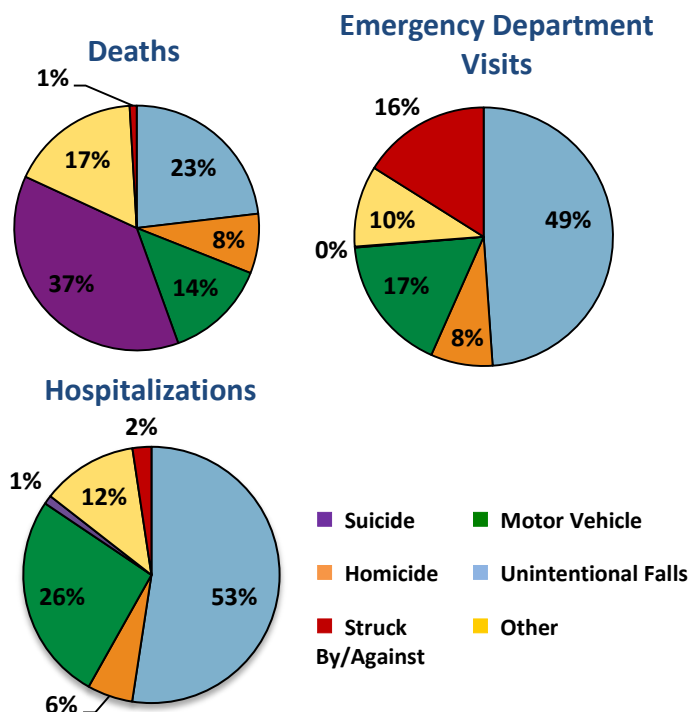


Figure 1: Percentage of Annual TBI-Related Deaths, Hospitalizations, and Emergency Department Visits, by External Cause, in Tennessee, 2014



TBI by Age

The highest number of TBI-related deaths* were among persons ages 55-64. Among those with TBI-related hospitalizations,** persons ages 75-84 were most affected. Persons ages 15-24 made the most TBI-related emergency department visits.**

*TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions

** TBI alone or in combination with other injuries or conditions





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TBI by Gender

Men were more likely to sustain a traumatic brain injury than women. The magnitude of this difference was greatest among those who *died*. Men accounted for 74% (30.0 *per 100,000*) of deaths where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions, 58% (96.9 *per 100,000*), of hospitalizations for TBI alone or in combination with other injuries or conditions and 49% (862.1 *per 100,000*) of emergency department visits for TBI alone or in combination with other injuries or conditions.



TBI Prevention Strategies

CDC's National Center for Injury Prevention and Control (Injury Center) is committed to protecting people against preventable TBI by putting science into action.

- **State Injury Prevention Programs** - The Injury Center's Core Violence and Injury Prevention Program (Core VIPP) funds state health departments to estimate the impact of TBIs and define the groups most affected. www.cdc.gov/injury
- **Heads Up** – Injury Center campaigns with free tools for health care providers, school administrators, nurses, teachers, coaches, and parents to help them recognize and respond to a TBI. www.cdc.gov/traumaticbraininjury
- **Motor Vehicle Safety** – Motor vehicle crashes are a leading cause of death, injury and TBI in the US. CDC's primary prevention focuses on child passenger safety, seat belt use and reducing impaired driving.

www.thecommunityguide.org/mvoi

www.cdc.gov/motorvehiclesafety

Tennessee TBI Activities

Prevention – The TBI Program provides education and support to professionals, survivors, families, and the general public on the need for brain injury prevention. In support of Tennessee's Sports Concussion law, the program provides concussion training materials for coaches, athletes, and parents through the Department website, and actively participates in the Child Safety Falls Prevention COIIN to reduce youth sports concussions.

Surveillance – All non-federal hospitals are required to report information to the Department of Health on all patients admitted with a traumatic brain injury diagnosis. Data trends, including total numbers of deaths, hospitalizations, and emergency department visits, are examined through hospital discharge data.

Partnerships – The TBI Program collaborates with the Brain Injury Association of Tennessee to host an annual conference and partners with the Tennessee Disability Coalition to implement Project BRAIN (Brain Resource and Information Network). The Tennessee Department of Education is also a partner in implementing Project BRAIN as well as in fulfilling the mandate of the concussion law. The TBI Program collaborates with Prevent Child Abuse Tennessee to implement shaken baby syndrome prevention education.

Accomplishments/Successes – The TBI Program is funded through increased fines on specific traffic violations. Approximately \$1 million is collected annually and allocated for grants to provide services to TBI survivors. Project BRAIN transition liaisons work in three children's hospitals and have assisted over 5,000 families in their child's transition from the hospital to home to school. Eight TBI service coordinators serve an average caseload of 75 survivors each year, assisting them with accessing local programs and services.

Tennessee Department of Health

<http://tn.gov/health/topic/MCH-vipp>

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